

CLAIMS

1. An arrangement for controlling a hydraulically driven motor, forming part of a hydraulic system in which hydraulic fluid under pressure forms a main flow through a main duct in which the motor is connected, the motor being adapted to drive a varying load, and one or more valves (6, 7) being adapted for controlling the hydraulic fluid flow through the motor on the one hand during operation and on the other hand for starting and stopping of the motor, one of the valves consisting of a flow control valve (7) which is connected in the main duct (1) downstream of the outlet of the motor, characterized in that the flow control valve (7) is integrated with the motor housing (50).
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2. The arrangement as claimed in patent claim 1, characterized in that the valve housing of the flow control valve (7) consists of a portion of the motor housing (50).
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3. The arrangement as claimed in patent claim 1 or 2, characterized in that the flow control valve (7) consists of a constant flow valve which is adapted for constant flow control of the hydraulic fluid flow through the motor.
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4. The arrangement as claimed in patent claim 1, characterized in that the flow control valve (7) is adapted for on the one hand starting/stopping of the motor and on the other hand constant flow control of the hydraulic fluid flow through the motor and is adapted to control the flow through the main duct depending on a sensed pressure difference across a change in area (15) which is arranged in the main duct downstream of the motor.
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5. The arrangement as claimed in patent claim 3, characterized in that the narrowing (15) is integrated in the motor block (50).
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6. The arrangement as claimed in patent claim 4, characterized in that the flow control valve (7) has two control inputs (26, 28) for controlling the flow control valve, one control input (28) being adapted to receive a control
5 flow which can alternately be connected to the main duct (1) upstream of the flow control valve for the stop position of the valve, that is to say blocking of the main flow, or connected to a control flow for the start position of the valve, that is to say fully open main flow, or constant flow control, and the other control input (21) being adapted to receive a control flow via a control
10 duct (22) which is connected to a location in the main duct on one side of the change in area (15).

7. The arrangement as claimed in patent claim 6, characterized in that the flow control valve (7) has a valve housing and a valve body (50) which is
15 movable in the valve housing and is provided with a throughflow passage (10) which is adapted so as, under the action of the force from the two control flows and a spring (18) and thus by virtue of the motion of the valve body, to vary its area relative to the inlet (8) or the outlet (9), and in that an actuator valve (6) is adapted for said changing between control flow to one
20 control input (28) for start position with open flow control valve, constant flow control with variable main flow depending on the pressure drop across the change in area, and stop position with fully closed flow control valve.

8. The arrangement as claimed in patent claim 7, characterized in that
25 the valve body consists of a piston slide (26) which is movable to and fro in a cylindrical bore (27), into one end of which one control input (28) leads and into the opposite end of which the other control input (21) leads.

9. The arrangement as claimed in patent claim 1, characterized in that
30 the motor (2) has an output rotation shaft (3) for driving a rotating load.

10. The arrangement as claimed in patent claim 9, characterized in that the load consists of a saw (11) in a sawing unit.